



UNITED STATES PATENT AND TRADEMARK OFFICE

mm

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,619	09/03/2003	Amit Lewin	5957-48401	4999

35690 7590 04/09/2007
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398

EXAMINER

NGUYEN, VAN KIM T

ART UNIT	PAPER NUMBER
----------	--------------

2151

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/654,619

Applicant(s)

LEWIN ET AL.

Examiner

Van Kim T. Nguyen

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11 and 30-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11 and 30-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/30/06 and 03/30/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is responsive to communications filed on September 12, 2003. Claims 1-7 and 12-19 have been cancelled, new claims 30-56 have been added by preliminary amendment dated March 30, 2007, thus claims 8-11 and 30-56 remain pending in the case.

2. Applicant's Remarks dated March 30, 2007 stating claims 8-11 and 30-64 are pending. However, only claims 8-11 and 30-56 are presented for examination.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on June 30, 2006 and March 30, 2007 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

4. Claim 55 is objected to because of the following informalities:

There are two different claims 55 presented for examining, while claim 54 is missing. In the interest of advancing prosecution of the case, Examiner will treat this as a typographical error and examine the first claim 55 as if it is indeed claim 54.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 2151

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-11, 38-39, 41, 46-51, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 6,529,479).

Regarding claim 8, Suzuki discloses a method of encapsulating Ethernet frames onto a VDSL facility, comprising receiving Ethernet frames from an Ethernet source (col. 6: lines 16-26 and col. 7: lines 8-15); storing the Ethernet frames for subsequent forwarding; encapsulating the previously stored Ethernet frames within VDSL frames, wherein each Ethernet frame is encapsulated entirely within a VDSL frame; and transmitting the VDSL frames over said VDSL facility.

Regarding claim 9, Suzuki also discloses Ethernet source comprises a 10BaseT Ethernet source (col. 5: lines 42-43).

Regarding claim 10, Suzuki discloses a method of extracting Ethernet frames from a VDSL facility comprising receiving VDSL frames from the VDSL facility, wherein every a given Ethernet frame is encapsulated entirely within a VDSL frame; extracting entire Ethernet frames from the VDSL frames received; storing the Ethernet frames for subsequent forwarding; and forwarding the Ethernet frames to an Ethernet source.

Regarding claim 11, Suzuki also discloses Ethernet source comprises a 10BaseT Ethernet source (col. 5: lines 42-43).

Regarding claim 38, Suzuki discloses a method comprising receiving an Ethernet frame from an Ethernet source (col. 6: lines 16-26). Though Suzuki does not explicitly recite

Art Unit: 2151

encapsulating the Ethernet frame within a VDSL frame, but since Suzuki teaches the modem 101 stores the PPP packet, which encapsulates the Ethernet packet received from the PC 106 in the data of an AAL5, and modulates the data stream of the ATM cells to an xDSL signals, and transmit the modulated signal to a subscriber line (col. 6: line 27 - col. 7: line 56), it is obvious the Ethernet packet has to be encapsulated within an VDSL frame, before transmitting the VDSL frame over a VDSL facility.

Regarding claim 39, Suzuki also discloses receiving a second VDSL frame over the VDSL facility; extracting an Ethernet frame from the VDSL frame; and transmitting the Ethernet from to the Ethernet source (e.g., col. 7: line 59 – col. 8: line 17).

Regarding claim 41, Suzuki also discloses the Ethernet source comprises a 10BaseT Ethernet source (col. 5: lines 42-43).

Regarding claims 46-47, Suzuki also discloses the VDSL frame excludes an Ethernet preamble that preceded the Ethernet frame on an Ethernet medium (Figures 5(e) and 5(d); col. 7: lines 15-21).

Regarding claim 48, though Suzuki does not explicitly recite encapsulating the Ethernet frame within a VDSL frame, but since Suzuki teaches the modem 101 stores the PPP packet, which encapsulates the Ethernet packet received from the PC 106 in the data of an AAL5, and modulates the data stream of the ATM cells to an xDSL signals, and transmit the modulated signal to a subscriber line (col. 6: line 27 - col. 7: line 56), it is obvious the Ethernet packet has to be encapsulated within an VDSL frame, before transmitting the VDSL frame over a VDSL facility.

Regarding claim 49, Suzuki also discloses transmitting the VDSL frame over a VDSL facility (col. 7: lines 51-53).

Regarding claim 50, Suzuki also discloses receiving the Ethernet frame from an Ethernet source (col. 6: lines 16-26 and col. 7: lines 8-15).

Regarding claim 51, Suzuki also discloses extracting another Ethernet frame from another VDSL frame (col. 8: lines 8-16).

Regarding claim 53, Suzuki also discloses a method comprising extracting an Ethernet frame from a VDSL frame (e.g., DSLAM 102 extracts ATM cells, transmits it to a SONET interface, access server 104 extracts the PPP packet then the IP datagram, converts the IP datagram into the physical frame and then transmits it to the Internet 105; col. 7: line 54 – col. 8: line 16).

Regarding claim 54, Suzuki also discloses transmitting the Ethernet frame on an Ethernet facility (e.g., converts the IP datagram into the physical frame and then transmits it to the Internet 105; col. 8: lines 13-16).

Regarding claim 55, Suzuki also discloses receiving the VDSL frame from a VDSL facility (col. 7: lines 51-56).

7. Claims 30-32, 34-36, 40, 42-44, 52 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 6,529,479), in view of Treadaway et al (7,002,941).

Regarding claims 30, 34 and 40, Suzuki does not explicitly call for the Ethernet source comprises a 100BaseT Ethernet source.

Treadaway discloses 100BseT Ethernet source (see Figure 3).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Treadaway's Ethernet 100BaseT in Suzuki's system, in order to achieve high speed data transmission.

Regarding claims 31, 35 and 42, Suzuki-Treadaway also discloses the encapsulating comprises inserting a length field prior to the Ethernet frame (Treadaway; col. 13: lines 39-46).

Regarding claims 32, 36 and 43, Suzuki-Treadaway also discloses inserting a preamble prior to the length field (Treadaway; col. 13: lines 39-46).

Regarding claim 44, Suzuki-Treadaway also discloses the preamble comprises a plurality of bytes exhibiting high autocorrelation properties (Treadaway; Table 1, col. 14).

Regarding claims 52-56, Suzuki-Treadaway also discloses encapsulating a plurality of Ethernet frames in respective VDSL frames, wherein the plurality of Ethernet frames to be of variable length (Treadaway; col. 14: lines 33-39).

8. Claims 33, 37 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 6,529,479), in view of Snodgrass et al (US 5,365,551).

Suzuki discloses substantially all the claimed limitations, except the preamble comprises a Barker code.

Snodgrass teaches the preamble comprises a Barker code (col. 10: line 65 – col. 11: line 9).

Art Unit: 2151

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Snodgrass's method of using the Barker code in Suzuki's system, motivated by the need of synchronizing the transmitted information.

Conclusion

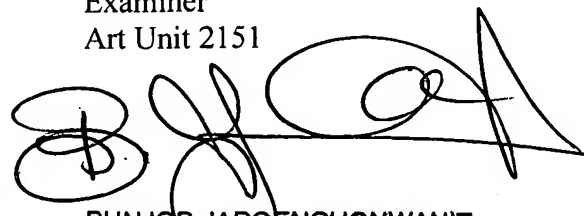
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

vkn

Van Kim T. Nguyen
Examiner
Art Unit 2151



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER